

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



Biotechnology Notes

Volume 6 • Number 2

U.S. Department of Agriculture

February 1993

Biotechnology Notes, a compilation of agency activities, news events, and upcoming meetings, is prepared for members of the U.S. Department of Agriculture's (USDA) Committee on Biotechnology in Agriculture (CBA) by USDA's Office of Agricultural Biotechnology (OAB).

INSIDE USDA

USDA OFFERS BIOTECH FELLOWSHIPS

Every year USDA awards almost \$4 million in fellowships to universities so they may recruit and train students pursuing a graduate degree in the food and agricultural sciences. Known as the national needs graduate fellowships program, it is administered by USDA's Office of Higher Education Programs in the Cooperative State Research Service (CSRS).

Biotechnology was named one of the national needs areas in 1984 when the program began. Since then, 205 biotech fellows have been recruited with 119 pursuing an education in plant biotechnology and 86 focusing on animal applications. Anyone wishing to learn more about the fellowships may call Jay Jackman, Office of Higher Education Programs, at 202-401-1790; Fax: 202-401-1770.

HEAR YE! ABRAC MEETS JUNE 30 IN NORTH CAROLINA

USDA's Agricultural Biotechnology Research Advisory Committee (ABRAC) will meet in Research Triangle Park, NC June 30-July 1. The Committee plans to discuss a report to come out of a transgenic animals working group that will take place April 8 in Washington, DC. The ABRAC will also hear a report from a conference on societal issues that meets June 28-29, also in Research Triangle Park. That conference is entitled "Symbol, Substance and Science: Societal Issues of Food Biotechnology," and it is being sponsored by USDA in cooperation with the North Carolina Biotechnology Center. All of these meetings are open to public. For further details about the ABRAC meeting, please call Alvin Young, Executive Secretary, Office of Agricultural Biotechnology (OAB), at 703-235-1419; Fax: 703-235-4429. For details about the conference, call Steve Burke at 919-541-9366.

CRIS AND AGRICOLA DATABASE WORKSHOPS

Introductory training and in-depth courses in CRIS (Current Research Information System) and AGRICOLA (Agricultural Online Access) will be held in Beltsville, MD and Washington, DC in February, April, May, July, and September.

AGRICOLA is an online computer database composed of more than 3 million bibliographic citations to literature on all aspects of agriculture. CRIS contains over 35,000 descriptions of ongoing and recently completed research projects sponsored or conducted by the USDA, state agricultural experiment stations and land-grant universities, state forestry schools, cooperating schools of veterinary medicine, and the competitive research grants program of USDA's CSRS.

For more information about the AGRICOLA workshops, please call 301-504-5204. Details about the CRIS workshops may be obtained by calling 301-504-6846.

NEWS AROUND THE NATION (AND THE WORLD)

ABC AND IBA JOIN HANDS

The two major biotechnology trade associations in the United States -- the Association of Biotechnology Companies (ABC) and the Industrial Biotechnology Association (IBA) - - announced on January 11 that they were forming a united organization to serve the biotechnology industry. Membership in the new Biotechnology Industry Organization (BIO) will total about 490 firms, or 90% of the entire biotech industry in this country. The merger is subject to ratification by IBA and ABC at their respective annual meetings -- February for IBA and April for ABC. For more details call William Small at 202-234-3330 or Eric Christensen at 202-857-0244.

POLLUTION PROBLEMS TACKLED BY OECD GROUP

The Organization for Economic Cooperation and Development (OECD) meeting of the ad hoc Group of Government Experts on Biotechnology for a Clean Environment met in Paris, France January 11 through 13. The group has been working on a document describing the state-of-the-art as well as government and industry policies in biotechnology related to preventing, detecting, and remediating pollution problems. Future projects were also discussed, according to Michael Schechtman who attended from USDA's Animal and Plant Health Inspection Service. He said some of the projects

would fall under the auspices of the OECD Directorate for Science, Technology, and Industry, while others would come under the Environment Directorate.

SHORT COURSES ON BIOTECH OFFERED

The Institute for Applied Pharmaceutical Sciences, East Brunswick, New Jersey, is offering two companion courses for the non-specialist. "Fundamentals of Biochemistry: Background for Biotechnology" (March 29-30) will cover the fundamentals of genetic engineering, while "Fundamentals of Molecular Biology and Genetic Engineering: A Guide to the Tools of Biotechnology" (March 31-April 2) will focus on selected aspects of biochemistry with the principles for understanding the structural and functional relations of biomolecules including DNA, proteins, enzymes, carbohydrates, and monoclonal antibodies. Both courses are intended for personnel with some scientific background seeking college-level biochemistry training. For more details, send a fax to 908-238-9113.

NEW BIOTECH RESEARCH PARK GOING UP

Groundbreaking is slated for early this year for the Virginia Biotechnology Research Park in downtown Richmond. The Park is a cooperative venture sponsored by the University of Virginia, the City of Richmond, the Commonwealth of Virginia, and the business community. Upon completion, the Park will house 3,000 scientists and technicians on 1.5 million square feet of laboratory and office space on a 20 acre site. Both small start-up biotechnology companies and large, established businesses will occupy the space. Priority will be given to researchers from Virginia universities seeking to commercialize life science technologies. For more details call Robert E. Olson, Director, at 804-371-5390.

ISIS CONFERENCE ON AG BIOTECHNOLOGY SLATED FOR JUNE

The Institute for Science in Society (ISIS) is planning a conference for June 10-11 in Washington, DC entitled "A New Paradigm for Food, the Farm, and the Public: The Impact of Biotechnology." Issues to be covered include updates from the executive branch and Congress, labeling, transgenics (plants and animals), regulation, commercialization, public policy, communications, and global food issues. To receive a brochure describing the conference, call USDA's OAB at 703-235-4419; Fax: 703-235-4429. For more information about ISIS or to register, call Luise Light, Executive Director, at 202-331-0613; Fax: 202-331-7543.

CALGENE SEEKS FOOD ADDITIVE APPROVAL

Calgene Inc. recently submitted a letter to the Food and Drug Administration (FDA) requesting that their previous request for an advisory opinion on the kanamycin (kan) resistance gene be converted to a food additive petition. The kan gene is used as a marker in Calgene's new product, the "Flavr Savr" tomato. If FDA accepts the petition, the agency will publish a notice in the *Federal Register* announcing the filing of the petition. If FDA determines the petition is not complete, then Calgene will be asked to provide additional scientific data. According to James Maryanski, FDA's biotechnology coordinator, the Calgene request is consistent with FDA's policy statement and does not change that policy.

CABA: TRANSFERRING TECHNOLOGY GLOBALLY

The San Francisco, CA-based Center for Applied Biotechnology in Agriculture (CABA) is a non-profit organization that develops projects to transfer U.S. biotechnology to foreign markets. CABA is focused primarily on the newly emerging nations of the former Soviet Union and developing nations in Africa, Latin America, The Caribbean, and the Middleeast. CABA works with ministries of agriculture in these nations, multilateral donor agencies, U.S. universities, private businesses, government agencies and research facilities. Together they identify proven U.S. ag technologies, such as biotechnology, and match these technologies with projects in developing countries around the world. Genetically modified bamboo trees, flavor enhancement for mushrooms, and advancements in the fermentation process are a few of the goods and processes in CABA's inventory. To learn more, call Reginald Morrow, CABA Executive Director, at 415-775-3334.

IN CASE YOU WEREN'T THERE

■ North America's largest annual fish farming conference, "**Aquaculture Expo VI**" took place January 5-10 in New Orleans, LA. The conference explored what works and what is profitable in aquaculture, and looked at what is on the horizon for the industry in production, marketing, education, research, and governmental affairs. Biotechnology was a topic of discussion in at least three sessions.

William Wolters, USDA/Agricultural Research Service, said that although fish genetics is at a stage more comparable to that of the livestock and poultry industries in the 1950's, the modern tools of biotechnology may accelerate the rate at which comparable gains may be made. Maryln Cordle, USDA/OAB, discussed the development of performance standards for safely conducting research with genetically modified fish and shellfish.

Meryl Broussard, USDA/CSRS, said the political climate for support of the aquaculture industry will probably never be more favorable since both President Clinton and Secretary of Agriculture Michael Espy have both promoted the development of aquaculture in their states.

■ **"Biotechnology and the Dairy Industry"** was the theme of one session at a January 13-16 meeting of the U.S. Dairy Forum in Tucson, AZ. Panelist Alvin Young, USDA/OAB Director, discussed disease resistance in dairy animals, patent issues, enhanced nutrition and digestibility of milk, and other issues. He said a major limiting factor in dairy agriculture is the lack of basic information about infectious and noninfectious causes of disease in dairy animals. Biotechnology tools, however, such as recombinant animal vaccines and marker-assisted selection to increase disease resistance, could shed new light on animal health and disease resistance problems. He pointed out one example recently proposed in which special retroviruses are infused into the mammary gland. Animals transformed by this method are transgenic in the mammary gland and would not pass the genetic change onto their progeny.

Susan Harlander, Director of Dairy Foods Research and Development, Land O'Lakes Inc., Minneapolis, MN, discussed how biotechnology will affect the dairy industry in the future. Leslie Lamb of the Wisconsin Milk Marketing Board, Madison, WI, talked about delinking fat and nonfat solids, producing lowfat milk on the farm, and how these emerging technologies will affect the dairy industry in the world marketplace.

■ Patent policy in the United States, Japan and the European Community and harmonization were some of the topics presented during the **"International Patent Protection for Biotechnology Companies Conference,"** January 11-12, in Washington, DC. Charles Van Horn of the U.S. Patent and Trademark Office reported that biotechnology patents have been growing at about 15% a year, compared to 8% growth for other industries. He said increasing the biotechnology staff has helped reduce the backlog. David Rosenbaum, President of Rosenbaum and Schwartz, described legislative efforts to change the U.S. from a "first to invent" system to a "first to file" one, which would make U.S. law consistent with European and Japanese patenting laws.

■ **BioEast '93** featured a day-long session on agricultural biotechnology at its January 25 conference in Washington, DC. Highlights of that session included a discussion on transgenic animals in which USDA's Deputy Administrator for the Food Safety and Inspection Service, Marvin Norcross, presented the fundamental principles for food policy concerning transgenic animals. At another session on transgenic plants, Hugh Sampson of the Johns Hopkins University School of Medicine, said food allergies among adults and

children are significant enough to support labeling requirements that would identify potentially allergenic proteins from donor crops.

NEW PUBLICATIONS

- "The U.K. Biotechnology Handbook '93." Published by BioCommerce Data Ltd, U.K. Contains organization profiles and reviews on environmental releases, European coordination, and public offerings. To order call 0753-511777; Fax: 0753-512239.
- "Food and Agriculture Competitively Awarded Research and Education Grants," December 1992. Prepared by USDA's CSRS. To receive a copy, please call 202-401-1804.
- *Biocatalyst Design for Stability and Specificity*. Edited by Michael E. Himmel. Published by the American Chemical Society. December 1992. To order call 202-872-4600.
- "Renewing the Promise: Research-Intensive Universities and the Nation." A new report (December 1992) prepared by the President's Council of Advisors on Science and Technology. Also, "In the National Interest: The Federal Government and Research-Intensive Universities." Issued by the Federal Coordinating Council for Science, Engineering, and Technology of the Office of Science and Technology Policy, Executive Office of the President. To order both reports, call 202-357-5000 and ask for publication number 92-223.

UPCOMING MEETINGS

Feb. 8-9: Biotechnology Regulatory Basics. Lake Tahoe, NV. For details send a fax to Parenteral Drug Association Inc. at 301-986-0296.

Feb. 9: "The State of the Biotechnology Industry." This program is sponsored by the Association of Biotechnology Companies and takes place at the American Association for the Advancement of Science, 1333 H Street, N.W., Washington, DC, from 3:30 p.m.-5:00 p.m. To make a reservation, call Richard Okiuye at 202-234-3330.

Feb. 11-16: Annual Meeting of the American Association for the Advancement of Science. Boston, MA. The agenda includes a session on agricultural biotechnology. For details write to AAAS, 1333 H Street, N.W., Washington, DC 20005.

Feb. 18: Biotechnology Litigation: Myths and Realities. Seattle, WA. For details write to Northwest Biotechnology Series, c/o Julie Holly, ZymoGenetics Inc., 4225 Roosevelt Way NE, Seattle, WA 98105.

Feb. 18: "Biotechnology Alliances: The Quebec Experience" is the program title for a meeting sponsored by the Maryland Biotechnology Network, the Montgomery County High-Tech Council, and Quebec Government House. It will be held in Columbia, MD at the Howard Community College in conjunction with Howard County's and the Greater Baltimore Committee's Technology Councils. To make a reservation, please call 301-762-6325.

March 22-23: "Changing Food Policy Directions: High Stakes, Tough Choices." Washington, DC. Sponsored by Public Voice for Food and Health Policy and the National Food Processors Association. For details call 202-659-5930; Fax: 202-659-3683.

March 29-31: Genetic Manipulation of Plant Metabolism and Growth. Norwich, Norfolk, UK. For details write to M.J.C. Rhodes, AFRC Institute of Food Research, Colney Lane, Norwich, Norfolk NR4, 7UA, UK; Telephone: 060-35-6122.

March 31-April 3: Twelfth Annual Symposium: Current Topics in Plant Biochemistry, Molecular Biology and Physiology. Columbia, MO. Call Doug Randall at 314-882-7796; Fax: 314-882-5635.

April 5-8: "The Risk Assessment Paradigm After Ten Years: Policy and Practice Then, Now, and in the Future." Wright-Patterson Air Force Base, Ohio. Sponsored by Armstrong Laboratory, the Naval Medical Research Institute Detachment, the Army Biomedical Research and Development Laboratory, and EPA. For details call Lois Doncaster, Conference Coordinator, at 513-256-3600, ext. 212.

April 8: Meeting of USDA's Agricultural Biotechnology Research Advisory Committee Working Group on Transgenic Animals. Washington, DC. For details, please call Daniel Jones, OAB Deputy Director, at 703-235-4419.

April 12-16: ABC 7th International Biotechnology Meeting and Exhibition. Research Triangle Park, NC. Hosted by the North Carolina Biotechnology Center. For details call 202-234-3330; Fax: 202-234-3565.

April 19-22: First International Symposium on the Biology of Adventitious Root Formation. Texas. For details call Edith Franson, USDA Forestry Sciences Lab, Box 898, Rhinelander, WI 54501.

April 21-25: Molecular Genetics of Plant-Microbe Interactions. East Brunswick, NJ. Call 908-932-8276.

April 26-27: The Eleventh Annual ATCC Biotechnology Patent Conference. Washington, DC. Sponsored by the American Type Culture Collection. For details call 301-231-5566.

Biotechnology Notes is written by Marti Asner, USDA/OAB biotechnology information officer. Story ideas are always appreciated and may be sent to USDA/OAB, Room 1001, Rosslyn Plaza East, 14th and Independence Ave., S.W., Washington, DC 20250-2200. Phone: 703-235-4419; Fax: 703-235-4429.